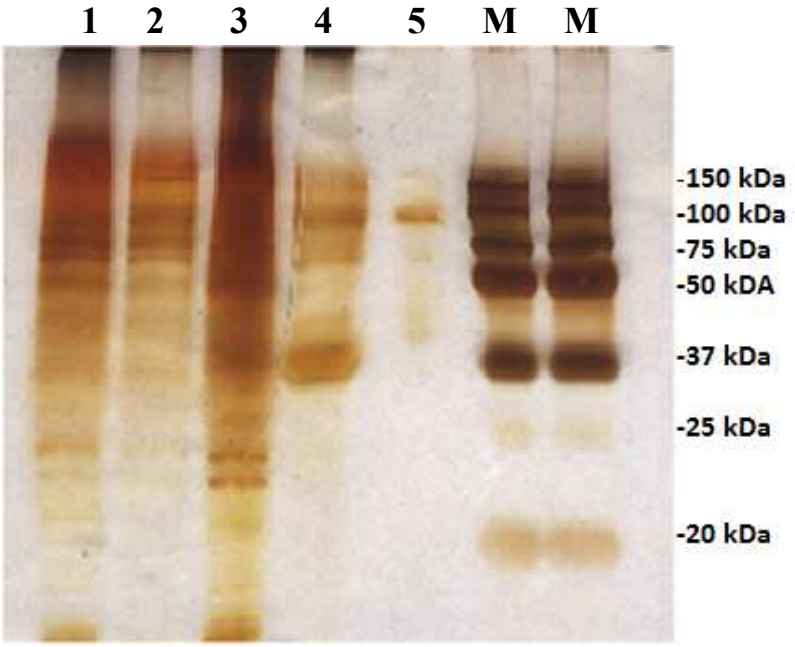

Figure 1. silver stained gel of the purified fractions: Samples from each fraction were run in a 10% gel. Lane 1 shows the high speed supernatant after clarification (step 5.5), lane 2 is the pellet after clarification, lane 3 is the supernatant after the first sedimentation with sucrose cushion (step 7.1), lane 4 is the pellet after the first sedimentation, and lane 5 is the purified kinesin sample (the KHC is the band at approximately 100kDa, and the weaker band at about 75 kDA is the KLC). Note: Because it is highly concentrated, we needed to dilute the kinesin fraction before running it on the gel: the purified KHC fraction loaded was 20 times less than the other fractions**.**

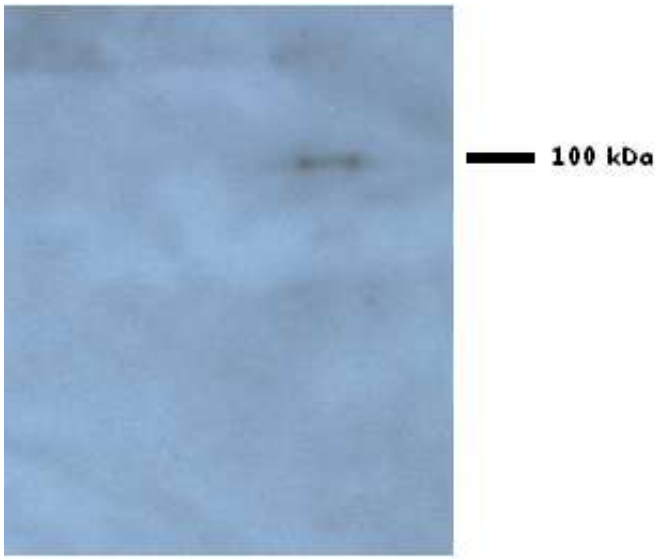

Figure 2. Purified KHC fraction blotted against anti-kinesin antibody: 1 µg of khc purified sample was run in a 10 % gel. The Primary had a 1:1000 dilution of the antibody AKINO1-A with TBST and 5% milk . The membrane was agitated for 1 hour at room temperature. The Secondary had a 1:10,000 dilution of Donkey –anti-rabbit in TBST, agitated for 1 hour at room temperature. Exposure time of film was 30 seconds.

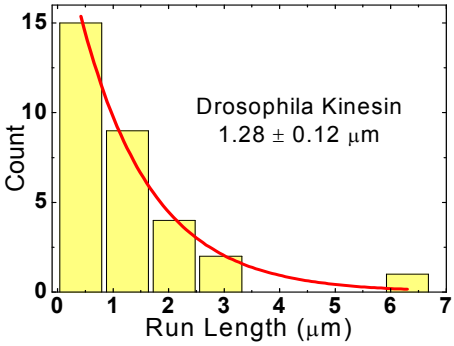

Figure 3: Runlength of single *Drosophila* full length kinesin